In the claims:

Replace the current claims with new claims 16-37.

16. Nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 nucleotides, with the exception of the nucleic acid having the sequence:

GCCAACACGC ANTCCGACGA CAGTGCAGCC ATGGTCATTG CAGAGATGCN TCAAAGTCAA TGAGCACATC ACCAACGTAA ACGTCGAGTC CAACTTCATA ACGGGAAAGG GGATCCTGGC CATCATGAGA GCTCTCCAGC ACAACACGGT GCTCACGGAG CTGCGTTTCC ATAACCAGAG GCACATCATG GGCAGCCAGG TGGAAATGGA GATTGTCAAG CTNCTGAAGG AGAACACGAC GCTNCTGAGG CTGGGNTACC ATTTTNAACT CCCAGGACC (SEQ ID NO 6)

wherein N is A, C, T, or G.

17. The nucleic acid according to claim 16, characterized in that the nucleic acid is DNA or RNA.

18. The nucleic acid according to claim 17, characterized in that the nucleic acid is DNA.

19. The nucleic acid according to claim 18, characterized in that the nucleic acid is double-stranded DNA.

20. The nucleic acid according to claim 16, characterized in that the nucleic acid comprises a DNA sequence as shown in Fig. 1 (SEQ ID NO: 1), Fig. 2 (SEQ ID NO: 2), or Fig. 3 (SEQ ID NO: 3).

21. The nucleic acid according to claim 16, characterized in that the part of the nucleic acid that codes for the polypeptide comprises one or more noncoding sequences or a polyA sequence.

22. The nucleic acid according to claim 16, characterized in that the nucleic acid is present in a vector.

23. The nucleic acid according to claim 22, characterized in that the nucleic acid is present in an expression vector.

24. The nucleic acid according to claim 22, characterized in that the nucleic acid is present in a vector effective for gene therapy.

25. A process for the preparation of a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 nucleotides, with the exception of the nucleic

acid having the sequence:

GCCAACACGC ANTCCGACGA CAGTGCAGCC ATGGTCATTG CAGAGATGCN TCAAAGTCAA TGAGCACATC ACCAACGTAA ACGTCGAGTC CAACTTCATA ACGGGAAAGG GGATCCTGGC CATCATGAGA GCTCTCCAGC ACAACACGGT GCTCACGGAG CTGCGTTTCC ATAACCAGAG GCACATCATG GGCAGCCAGG TGGAAATGGA GATTGTCAAG CTNCTGAAGG AGAACACGAC GCTNCTGAGGCTGGGNTACCATTTTNAACTCCCAGGACC (SEQ ID NO 6), wherein N is A, C, T, or G,

the process comprising chemically synthesizing the nucleic acid or isolating the nucleic acid from a gene bank using a nucleic acid probe.

26. A polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, with the exception of the polypeptide having the sequence:

PTRNPTTVQPWSLQRCIKVNEHITNVVNVESNFITGKGILAIMRALQ HNTVLTELRFHNQRHIMGSQVEMEIVKLLKENTTLLRLGYHFKLPG (SEQ ID NO: 7).

27. A process for the preparation of a polypeptide according to claim 26, the process comprising expressing a nucleic acid of claim 16 in a host cell.

28. An antibody against a polypeptide having an amino sequence as shown in Fig.

4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids.

29. A process for the preparation of an antibody according to claim 28, the process comprising immunizing a mammal with a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, and isolating the resulting antibodies from the mammal.

30. A medicinal product comprising a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, and, where appropriate, a pharmaceutically acceptable carrier.

31. A process for the preparation of a medicinal product for treating cardiac disorders, the process comprising formulating a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino

acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, with a pharmaceutically acceptable carrier.

32. A process for treating cardiac disorders in a mammal, the process comprising administering to the mammal a nucleic acid encoding a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, in an amount sufficient to treat the cardiac disorder.

33. The process according to claim 32, characterized in that the nucleic acid is formulated with a pharmaceutically acceptable carrier.

34. The process according to claim 32, characterized in that the mammal is a human.

35. A diagnostic aid comprising a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts

thereof having at least 6 amino acids, or an antibody according to claim 28, and, where appropriate, suitable additives or excipients.

36. A process for the preparation of a diagnostic aid for diagnosing cardiac disorders, the process comprising mixing a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, or an antibody according to claim 28, with suitable additives or excipients.

37. A test kit for identifying functional interactors, the kit comprising a nucleic acid coding for a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 8 amino acids, or a polypeptide having an amino acid sequence as shown in Fig. 4 (SEQ ID NO: 4) or a functional variant thereof, and parts thereof having at least 6 amino acids, and suitable additives or excipients.

If there are any charges, or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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